

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: MIRROR LAKE	Lake Area (ha):	17.16
Town: WHITEFIELD	Maximum depth (m):	7.0
County: Coos	Mean depth (m):	2.3
River Basin: Connecticut	Volume (m ³):	399000
Latitude: 44°23'16" N	Relative depth:	1.5
Longitude: 71°36'26" W	Shore configuration:	1.23
Elevation (ft): 1035	Areal water load (m/yr):	5.98
Shore length (m): 1800	Flushing rate (yr ⁻¹):	2.60
Watershed area (ha): 215.0	P retention coeff.:	0.63
% watershed ponded: 0.0	Lake type:	natural w/dam

BIOLOGICAL:

		10 January 1995	8 August 1994
DOM. PHYTOPLANKTON (% TOTAL)	#1	SYNURA 65%	TABELLARIA 35%
	#2	ASTERIONELLA 25%	DINOBRYON 30%
	#3		
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			3.46
DOM. ZOOPLANKTON (% TOTAL)	#1	KELLICOTTIA 31%	NAUPLIUS LARVA 31%
	#2	KERATELLA 21%	KERATELLA 28%
	#3	ASPLANCHNA 15%	CYCLOPOID COPEPOD 14%
ROTIFERS/LITER		61	108
MICROCRUSTACEA/LITER		6	122
ZOOPLANKTON ABUNDANCE (#/L)		72	239
VASCULAR PLANT ABUNDANCE			Scattered
SECCHI DISK TRANSPARENCY (m)			3.0
BOTTOM DISSOLVED OXYGEN (mg/L)		6.2	0.1
BACTERIA (E. coli, #/100 ml)	#1		1
	#2		< 1
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m):	4.3
Hypolimnion volume (m ³):	23000
Anoxic volume (m ³):	48500

CHEMICAL:

Lake: MIRROR LAKE

Town: WHITEFIELD

	10 January 1995		8 August 1994		
DEPTH (m)	2.0	4.0	1.0	3.5	5.5
pH (units)	6.4	6.3	6.8	6.9	6.5
A.N.C. (Alkalinity)	11.2	11.2	9.7	10.6	14.6
NITRATE NITROGEN	0.12	0.13	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.58	0.66	0.49	0.41	0.62
TOTAL PHOSPHORUS	0.011	0.009	0.016	0.011	0.026
CONDUCTIVITY (μ mhos/cm)	137.0	143.8	136.0	125.0	140.8
APPARENT COLOR (cpu)	33	33	33	37	50
MAGNESIUM			1.62		
CALCIUM			6.2		
SODIUM			15.9		
POTASSIUM			1.83		
CHLORIDE	32	32	30		30
SULFATE	7	8	7		6
TN : TP	64	88	31		24
CALCITE SATURATION INDEX			2.7		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1994

D.O. S.D. PLANT CHL TOTAL CLASS

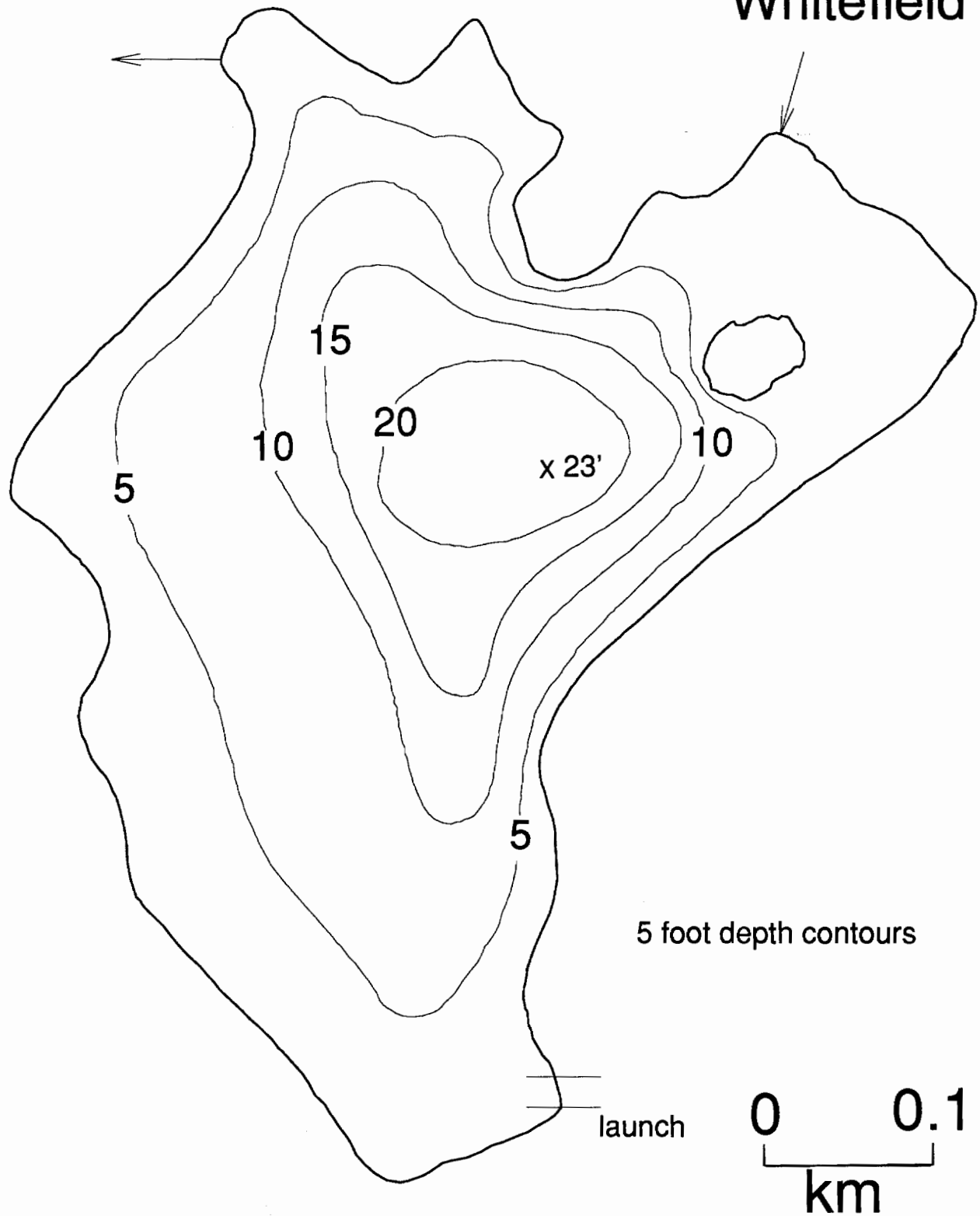
4	3	1	0	8	Meso.
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COMMENTS:

1. AKA Blake Pond.
2. This pond was previously surveyed and classified in 1979. There was no change in water quality or classification between the two dates.
3. Elevated sodium and chloride levels suggest salt runoff into the pond.
4. Sonar (depth) readings were erratic; the lake bottom may be more irregular than depicted on the depth contour map.
5. Good boat launch site; parking for 5 to 6 trailers.

Mirror Lake

Whitefield



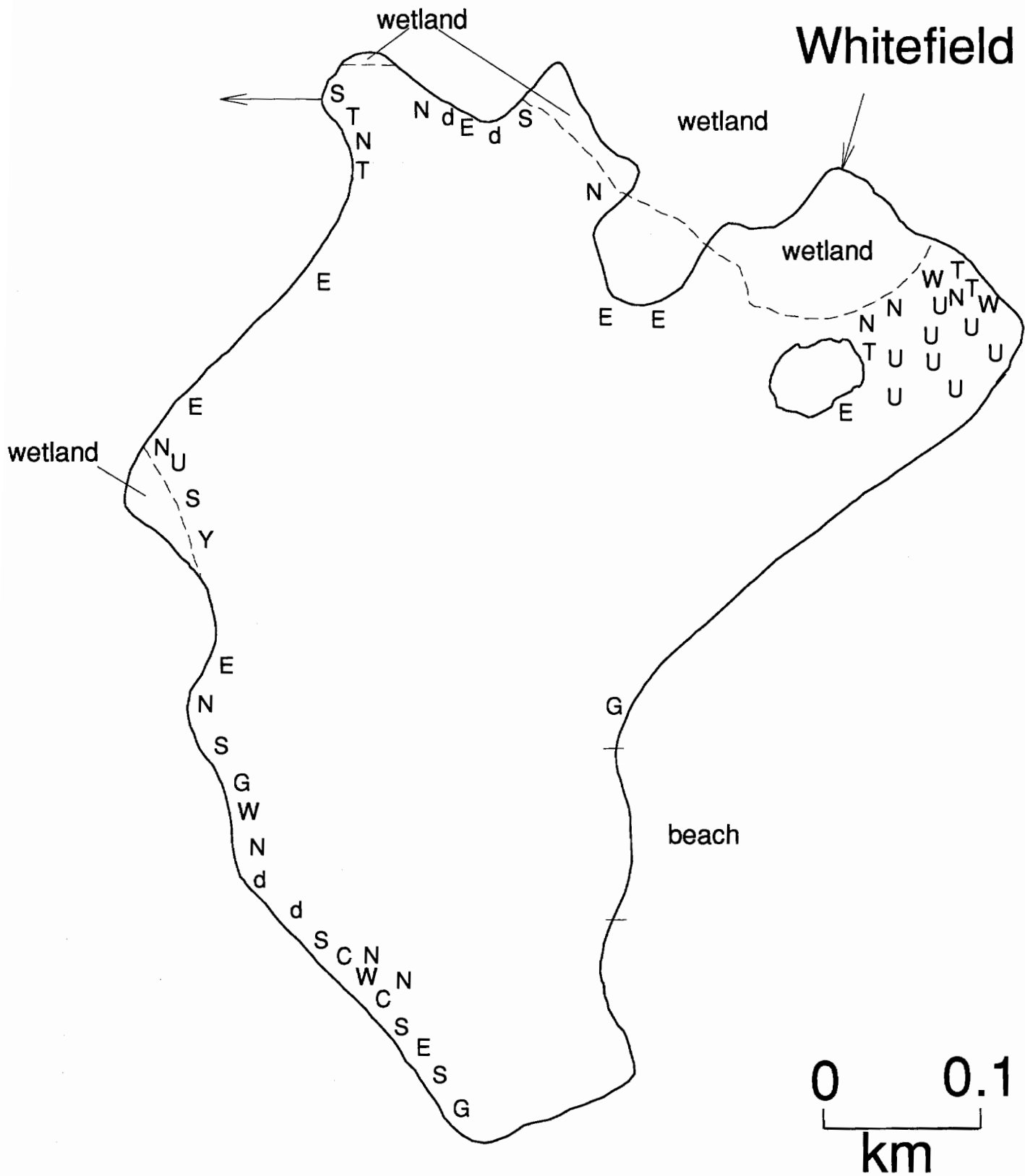
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COMMENTS :

***Dissolved oxygen values are in mg/L**

Mirror Lake

Whitefield



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